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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/004,289	10/25/2001	Steven I. Ross	1280.2003-000	8162
21005	7590	06/03/2005	EXAMINER	
HAMILTON, BROOK, SMITH & REYNOLDS, P.C. 530 VIRGINIA ROAD P.O. BOX 9133 CONCORD, MA 01742-9133			RIVERO, MINERVA	
			ART UNIT	PAPER NUMBER
			2655	

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/004,289

Applicant(s)

ROSS ET AL.

Examiner

Minerva Rivero

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/15/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 24/1/03, 1/26/05 and 3/24/05.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Responding to the Office Action mailed 9/20/2004, in the Remarks filed on 12/15/2004, Applicant amended the specification submitted 10/25/2001 to correct grammatical and typographical errors. Furthermore, Applicant amended claims 2-3 and 16-17, and submitted arguments to traverse the rejection of claims 1-23.

Response to Arguments

2. Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection, next.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 2655

4. Claims 1-5, 7-12, 14-19 and 21-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Loatman *et al.* (US Patent 4,914,950).

5. Regarding claims 1, 8, 15 and 22-23, Loatman *et al.* disclose a method, system and computer-readable medium for analyzing spoken utterances comprising common language words in a speech-enabled environment comprising the steps of and elements for:

defining a grammatic specification suitable for processing spoken utterances based on a domain model for a speech-enabled application (*speech recognition device*, Col. 6, Lines 16-18; *deriving an ATN grammar specification and submitting the resultant 'case frames' to discourse analysis to derive domain-specific knowledge*, Col. 2, Line 65 – Col. 3, Line 3, see Fig. 1, elements 80, 90, 110, 120, 130 and 135);

processing a recognition message, based on one of the spoken utterances recognized by a speech engine, to produce an initial semantic representation of the recognized spoken utterance based on the grammatic specification and the domain model (*converting the syntactic structure to 'case frames' which are semantic structures*, Col. 2, Line 65-Col. 3, Line 3) and

providing a set of propositions that represent the recognized spoken utterance, the set of propositions based on the initial semantic representation and the domain model (*passing the conceptual structures to a knowledge system*, Col. 6, Lines 44-69, see Fig. 1, elements 140, 160 and 165).

Art Unit: 2655

6. Regarding claims 2, 4, 9, 11, 16 and 18, Loatman *et al.* further disclose the step of defining a grammatic specification comprises the steps of:

receiving an ontological description of the domain model based on entities, classes, and attributes (*discourse analysis component for generating patterns based on the specific domain*, Col. 3, Lines 35-43; *Role Specification*, Section 5.1; *entities that may fill the case roles*, Col. 1, Lines 45-50; *Person or Agent class*, and *attributes or properties*, Col. 16, Lines 30-51; *case frames represent a proposition about the world* (thus ontological description), Col. 3, Lines 12-24);

receiving syntax templates for the domain model specifying legal word sequences based on the ontological description (*syntactic parsing and applying domain-specific templates*, Col. 6, Lines 52-62) and

combining the ontological description, a lexicon, and the syntax templates to generate the grammatic specification (*deriving a conceptual structure from lexical, syntactic, semantic and domain-specific information*, Col. 2, Line 61 - Col. 3, Line 3, Col. 3, Lines 12-24 and 35-43).

7. Regarding claims 3, 10 and 17, Loatman *et al.* disclose the domain model comprises a lexicon of words associated with the speech-enabled application, said lexicon providing synonyms and parts of speech information for elements of the ontological description, and wherein the grammatic specification is based on said lexicon (*separating lexical categories*, Col. 40, Lines 17-21 and *synonyms*, Col. 47, Lines 45-55 (see *Lexicon*, Section 4)); *concept association and case frame template*

Art Unit: 2655

specifications, Col. 58, Lines 24-32; *examining a series of words in reference to a lexicon as part of the conceptual structure generation process*, Col. 2, Lines 61-64; *application-specific vocabulary*, Col. 2, Lines 18-21).

8. Regarding claims 5, 12 and 19, Loatman *et al.* disclose the domain model comprises a syntax specification and the grammatic specification is based on the syntax specification (*grammar specification based syntactic parsing results in case frames*, Col. 2, Lines 65; *pattern matching based on domain-specific knowledge*, Col. 3, Lines 35-43).

9. Regarding claims 7, 14 and 21, Loatman *et al.* further disclose the initial semantic representation is based on a frame structure representing the recognized spoken utterance (*stream of text produced by a speech recognition device and semantic structures known as 'case frames'*, Col. 6, Lines 14-18 and 41-43;).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2655

11. Claims 6, 13 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loatman *et al.* (US Patent 4,914,590) in view of Phillips *et al.* (US Patent 6,519,562).

Regarding claims 6, 13 and 20, Loatman *et al.* do not disclose but Phillips *et al.* do disclose the grammatic specification is a Backus Naur Form grammar (Col. 6, Lines 22-32).

Therefore it would have been obvious to one ordinarily skilled in the art at the time of the invention to modify the teachings of Loatman *et al.* by having the grammatic specification be a Backus Naur Form grammar, as taught by Phillips *et al.*, since it's an effective method of analyzing and describing the linguistic properties of a word string.

Conclusion


12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minerva Rivero whose telephone number is (571) 272-7626. The examiner can normally be reached on Monday-Friday 9:00 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talivaldis Ivars Smits can be reached on (571) 272-7628. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2655

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MR 5/25/2005



DAVID L. OMETZ
PRIMARY EXAMINER